

### **REMARKS**

Claims 15 – 17 and 21 – 36 are pending in the present application. Claims 16, 17, 21-24, 26-32, 34 and 36 are withdrawn from consideration as being drawn to a non-elected invention. By the present amendment 21-24 are hereby canceled without prejudice or disclaimer, and claim 29 is hereby amended. The amendment, which corrects a typographical error, adds no new matter.

In view of the amendments and the following remarks, reconsideration of claims 15, 22, 25, 29, 33, and 35 is respectfully requested.

#### **102 Rejections**

Claims 15 and 25 are rejected under 35 USC 102 (b) as being anticipated by U.S. Patent No. 5,602,099 (hereinafter “the ‘099 patent”).

Claims 15 and 25 recite a peptide consisting of bromotyrosine and one or more amino acids. According to MPEP 2111.03, the transitional phrase “consisting of” excludes any element, step, or ingredient **not** specified in the claim. (See, MPEP 2111.3, third paragraph.) Thus the elected species peptide recited in amended claims 15 and 25 cannot contain anything other than bromotyrosine and one or more of the 20 amino acids known in the art, and represented in the Patent Office’s sequence listings by a specific three letter code.

The peptides shown in the sequence listing of the ‘099 patent all contain a chemical compound which is not known in the art to be a conventional amino acid, including SEQ ID NO. 14, which in addition to bromotyrosine and the amino acid known in the art as phenylalanine (designated Phe in the sequence listing) contains the chemical compound known as 1,2,3,4 hydroisoquinoline-3-carboxylic acid. As noted in the sequence listing, 1,2,3,4 hydroisoquinoline-3-carboxylic acid is a modified site and is designated by the three letter code Xaa, meaning that it is something other than one of the conventional 20 amino acids that are known in the art and that are represented by a specific three letter code in the Patent Office’s sequence listings. For the Examiner’s convenience, applicant has attached hereto page 60 of Molecular and Cellular Biology, which shows the 20 amino acids that are known in the art and

that are normally used to make proteins. Since SEQ ID NO. 14 of the '099 patent contains something in addition to bromotyrosine and one or more conventional amino acids, SEQ ID NO. 14 of the '099 patent does not anticipate claims 15 and 25 of the instant application.

### 103 Rejections

Claims 15, 25, 33, and 35 are rejected as being unpatentable over U.S. Patent No. 5,602,099 in view of U.S. Patent No. 6,319,686 (hereinafter "the '686 patent").

The '099 patent does not teach or suggest a peptide consisting of 3-bromotyrosine and one or more of the 20 conventional amino acids known in the art. All of the opioid receptor antagonists disclosed in the '099 patent contain a chemical compound which is not known in the art to be a conventional amino acid (See SEQ ID NOs. 1-35 of the '099 patent). Indeed, several of the peptides recited in the sequence listing of the '099 patent contain multiple chemical compounds that are not known in the art to be conventional amino acids. (See, SEQ ID NO. 1, which contains a modified tyrosine at position 1, and two chemical compounds designated xaa at position 2 and 3 of the pentapeptide, See also, SEQ ID NO. 2, which contains an unmodified tyrosine at position 1 and two chemical compounds designated xaa at position 2 and 3 of the tetrapeptide) Thus, the '099 patent would not motivate one of ordinary skill in the art to replace the unique chemical compounds disclosed in the peptides shown in the sequence listing of the '099 patent with a conventional amino acid.

The '686 patent does not provide the teachings or suggestions absent from the '099 patent. There is nothing in the '686 patent to suggest that the chemical compound located at position 2 or position 3 of the molecules recited in the Sequence Listing of the '099 patent should be replaced with a conventional amino acid, as is known in the art. Moreover, there is nothing in the '686 patent to suggest that the molecules whose structures are shown in column 2 and 3 of the '099 patent should be modified to form a peptide that consists of 3-bromotyrosine and one or more amino acids. Accordingly, the '686 patent, and the '099 patent do not render the reagents recited in claims 15, 25, 33, and 35 of the present application obvious.

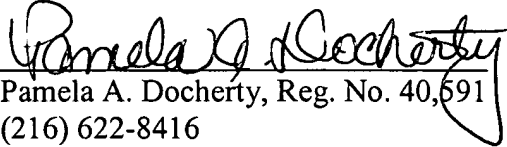
In view of the amendments and remarks, Applicants submit that the elected species recited in claims 15, 25, 33, and 35 of the present application is allowable and

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request that claims 27, 29, 34, and 36 should be considered. Applicants also respectfully request prompt notification of allowance of claims 15, 25, 27, 29, and 33-36.

Respectfully submitted,

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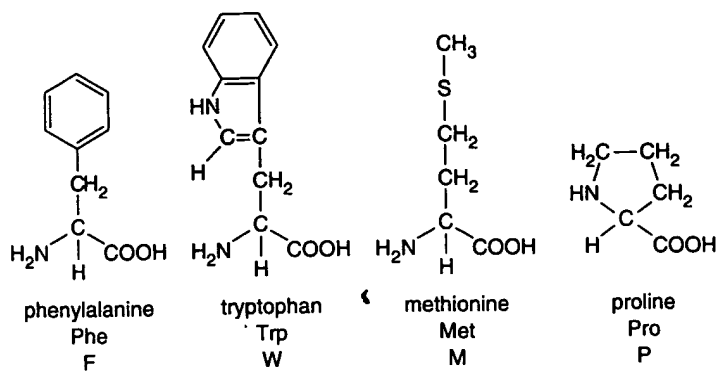
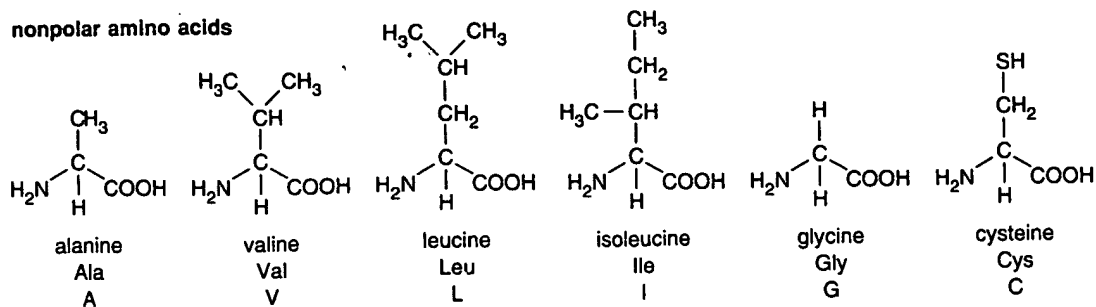
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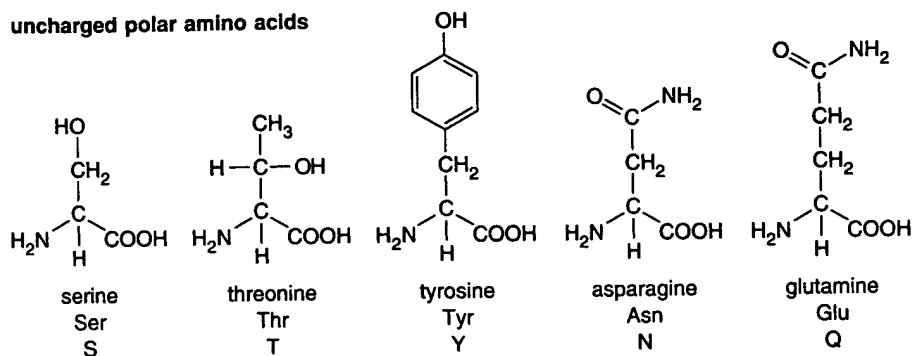
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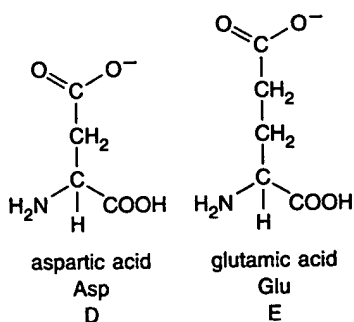
### nonpolar amino acids



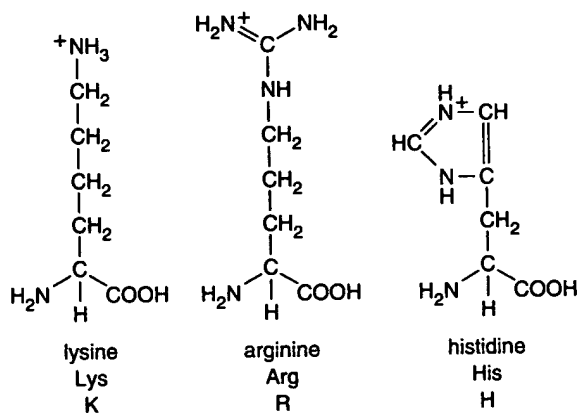
### uncharged polar amino acids



### negatively charged (acidic) polar amino acids



### positively charged (basic) polar amino acids



**Figure 2-18** The 20 amino acids used by ribosomes in protein synthesis. The side chains of each amino acid are boxed in color. One amino acid, proline, differs from the common structural plan (see text). Three-letter and one-letter abbreviations used for the amino acids appear below each structural diagram.

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